

1st

Work Order ID 53184

October 26, 2009 10:25:51 AM



Item ID: D4013-5 Accept

Revision ID: A-PRELIM 09.10.26

Item Name: Cup

Start Date: 26/10/2009 Start Qty: 20.00

Required Date: 29/10/2009 Req'd Qty: 20.00

Reference: 09.10.26



Setup Start



Stop



PRELIMINARY ISSUE

Cust Item ID:
Customer:



Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4013	A-PRELIM								

100

0.00



Hardinge

Hardinge CNC Lathe Small

Memo

turn as per Dwg
Dwg Rev: A Prelim.

0.00

SA 09/10/26

20

Deburr

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Quality Control

Memo

0.00

SA 09/10/26

20

120

QC8- Inspect parts - second check

0.00



QC

Quality Control

Memo

ENGINEERING
APPROVAL

0.00

SA 09.11.27 / ASS
09.10.27

20

Work Order ID 53184

October 26, 2009 10:25:51 AM



Page 2

Item ID:	D4013-5	Accept		Setup	Start	
Revision ID:	A-PRELIM				Stop	
Item Name:	Cup					
Start Date:	26/10/2009	Start Qty:	20.00		Cust Item ID:	
Required Date:	29/10/2009	Req'd Qty:	20.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>W0</u>	0.00							
Packaging	Memo	0.00							
Packaging									
<p><i>53217/WA-11 USE FOR TESTING. SCRAP REMAINING PARTS. 10/11/27. 10/9/12/01</i></p>									
140	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

POSITIVE RECALL

EFFECTIVE 9/11/26 AUTH 11

RELEASED 10/11/27 DATE 11

W09.12.16

PD0324ADK

10.09.10.30 Prototype

Picklist Print

Page 1

October 26, 2009 10:25:51 AM

Work Order ID: 53184



Parent Item: D4013-5



Parent Item Name: Cup



Start Date: 26/10/2009

Required Date: 29/10/2009

Comments:

Start Qty: 20.00

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M304R1.00  304 ROUND BAR 1.00		Purchased	No				f	0.0000	3.1579 			

M 109 508

SN 09/10/30



36100 VICENZA (Italia) - Viale della scienza, 25 z.i.

Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Ciente / Besteller/Purchaser/Client
VALBRUNA CANADA LTD
8724 HOLTGATE CRESCENT
CDN-MILTON, ONT L5T 5Z1-CAN

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller/Hersteller/Usine productrice

Avviso di Spedizione: D-VI07007544
Lieferanzettel/Packing list/B.L.

Ordine nr: 702001762 STOCK
Bestell/Your order/Commande

Certificato nr: MEST466400/2007/
Prüfung/Test/Essai

Conferma ordine nr: EI07001200
Werks/Our Order/Ref. nr.

Marchio di Fabbrica:
Zeichen des Lieferwerkes
Trade mark
Sigle de l'usine productrice



Oggetto Prove: - Annealed Cold Drawn
Prüfgegenstand/Item Inspected/Finissage

Tipo di Elaborazione: E+AOD
Erschmelzungsart/Melting process/Mode d'elaboration

Punzone del Collaudatore:
Stempel des Werksachverständigen
Inspector's stamp/Pointon de l'essayeur



Specifiche:
Anforderungen / Requirements / Exigences

VAL CANADA 2 304/304L A,CF
ASME SA182 2004 S30400/03 0
ASME SA479 2004 S30400/03 3
ASTM A262 2002A PRACTICE E
ASTM A320 2005A B8
NACE MR0175 2003 S30400/03 A s
(0) SEC.II PT.A 2004 EDITION ADD.2006
(1) SEC.II PT.A 2004 EDITION ADD.2006
(3) SEC.II PT.A 2004 EDITION ADD.2006
(5) * ISO 15156-3

AMS 5639 H S30400
ASME SA193 2004 B8 1
ASTM A182 2006 S30400/03 4
ASTM A276 2006 S30400/03
ASTM A479 2006 S30400/03
QQ-S-763 F 304/304L

AMS 5647 H S30403
ASME SA320 2004 B8 (2)
ASTM A193 2006A B8
ASTM A314 97 S30400/03
MIL-S-862 B/1 304/304L

0Chemical analysis only.
2SEC.II PT.A 2004 EDITION ADD.2006
4Chemical analysis only.

Qualità: T-304L
Werkstoff/Grade/Qualité

Marca: MVAISL MAXIVAL
Markenbezeichnung/Brand/Usine

Punzonatura: T-304L
Kennzeichnung/Marking/Marquage

Pos. nr. Pos. nr. Item nr.	Oggetto Gegenstand Product description	Dimensioni - In Abmessungen Dimension	Tolleranza Toleranz Tolerance	Lunghezza - Ft Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pieces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr.
0030	Round	1,0000	484-05A	12 / 12	419280		18.116	703905280

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind i. Anlage erfüllt
The material has been furnished in accordance with the requirements
Le matériel a été trouvé conforme aux exigences

Controllo antimescolanza: OK
Verwechslungsprüfung: spectralanalytisch durchgeführt
Antimixing testing performed: OK
Contrôle antimeleage: f.a.s.

Controllo visivo e dimensionale: soddisfa le esigenze:
Besichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional checks:satisfactory
Contrôle visuel et dimensionnel: satisfaisant

TEST	Provetta/Probennab Spezialtest/Eprouvette Längs- und Querschnitt Bohrer Diam. Dicke Wahl Diam. Thickness Läng. diam. épais mm	°F	Posiz. Saggio Position Localisation 1)	Snervamento Streckgrenze Yield Stress Rp 0,2% k.s.i.	Snervamento Streckgrenze Yield Stress Limite élastique	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.i.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Einziehbrüch Reduction of area Striction RA %	Resilienza Kerbschlagarbeit Impact Value Resilience	Durezza Härten Hardness Dureté HB 1/2 r.
Valori richiesti 1 Anforderungen/Required values Valeurs demandées		min max		30	-	75	- 40	- 50	-	140 223
A	12,5	68 L		72		99	45	67		220

Grain size for ASTM E112 : 5

1) L=longitudinale/längs, Q=transversale/quers, T=Tangenziale/tangentiel

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Schmelze/Coulée	min - max 0,030	1,00	2,00	18,00 - 20,00	1,00	1,00	8,00 - 10,50	0,040	0,030	0,100	-	-	-	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %			
419280	0,018	0,57	1,79	18,07	0,46	0,72	8,15	0,076	0,026	0,027	0,096			

Produced without class I-II Ozone depleting substances.

Solution heat treated free from continuous carbide network.

Annealing temperature: 1960°F for 1 H/H2O.

Micro and macro etch test: OK

Intergranular corrosion test per ASTM A262 pract. E: ok.

Material is DFARS Compliant

Melted and manufactured in Italy No welding or weld repair Material free from Mercury or radio-activity contamination

The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1,s.,4.3 by TUEV and LLOYD'S

Vicenza, 09/03/07

CC0008
(Mod. MCER)

Il collaudatore di stabilimento / der Werkssachverständige / Works inspector / L'agent d'usine

M. Rizzotto

Pagina - 1 di 1

DART

Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7
Phone: (613)632-9577
Fax: (613)632-1053

Oct 02, 2008	1
Purchase Order Number PO00007287	

FAKED
CL/10/02

Vendor Address:

Magna Stainless
525 avenue Meloche
Dorval, QC H9P 2W2
Canada
Phone (800) 363-6646
Fax (514) 631-0013

Ship To:

Main Finished Goods Location
Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7

Reference	Contact	Vendor Number	PO Date	Terms	Ship Via	Expected Arrival
		VC-MAG002	Oct 02, 2008	N30	yours	Oct 03, 2008

Qty. Ordered	Item Number	Description	Expected Arrival	Drop-Ship	Unit Cost	UOM	Extended Price
40.0000 <i>48.40 P/L</i>	M303R0500	303 Round Bar 0.500" Comments: MATERIAL: AISI 303 ROUND BAR (NOTE: AISI 304/316 NOT ACCEPTABLE)	10/3/2008	No	2.450000	f	98.00
72.0000 <i>78 P/L</i>	M304R1000	304 round bar 1.00 Comments: MATERIAL: AISI 304/316 ROUND BAR (NOTE: AISI 303 NOT ACCEPTABLE)	10/3/2008	No	8.500000	f	612.00

CL/10/03

**MATERIAL CERTIFICATION
REQ'D UPON DELIVERY**

Comments:

Tax Summary:

GST 35.50
ONTPST 0.00

Less:
included tax

0.00

Subtotal

710.00

Total tax

35.50

Total purchase order in

CAD Dollars

745.50

Entered By: *CL* CLAVOIE

Approved By: *W*

Receiving Report

Date: 8/19/03

Batch No: M109508

Supplier: MAGNA

Dart P/O: 7287

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☒ N/A ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC6 Inspection ☒ N/A ☐
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (If shipment OK) Level 12

Production/Admin: 08110106

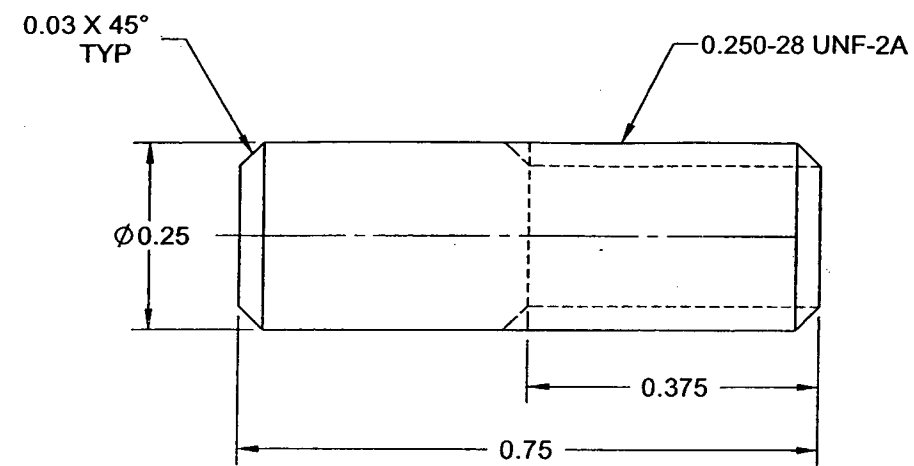
Date: 8/19/03

Received/Costing: CR

Initial: CR

Location: _____

RD00324 A Oct.

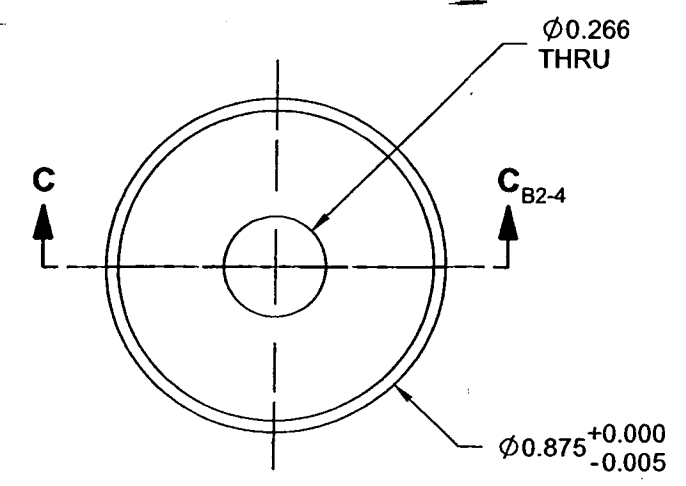


D4013-3 STUD

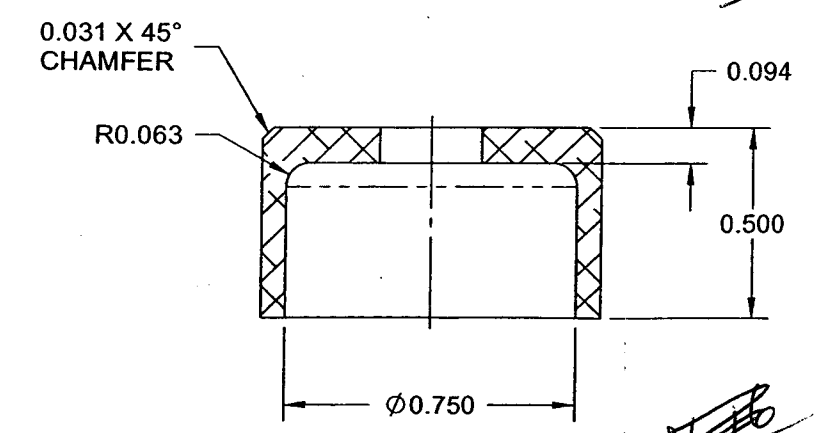
Batch: M112473
x15

.375 RB 304

Ø.244



D4013-5 CUP



SECTION C-C D2-4

x20

Similar to D3009

1/16

Batch M109508

PRELIMINARY ISSUE

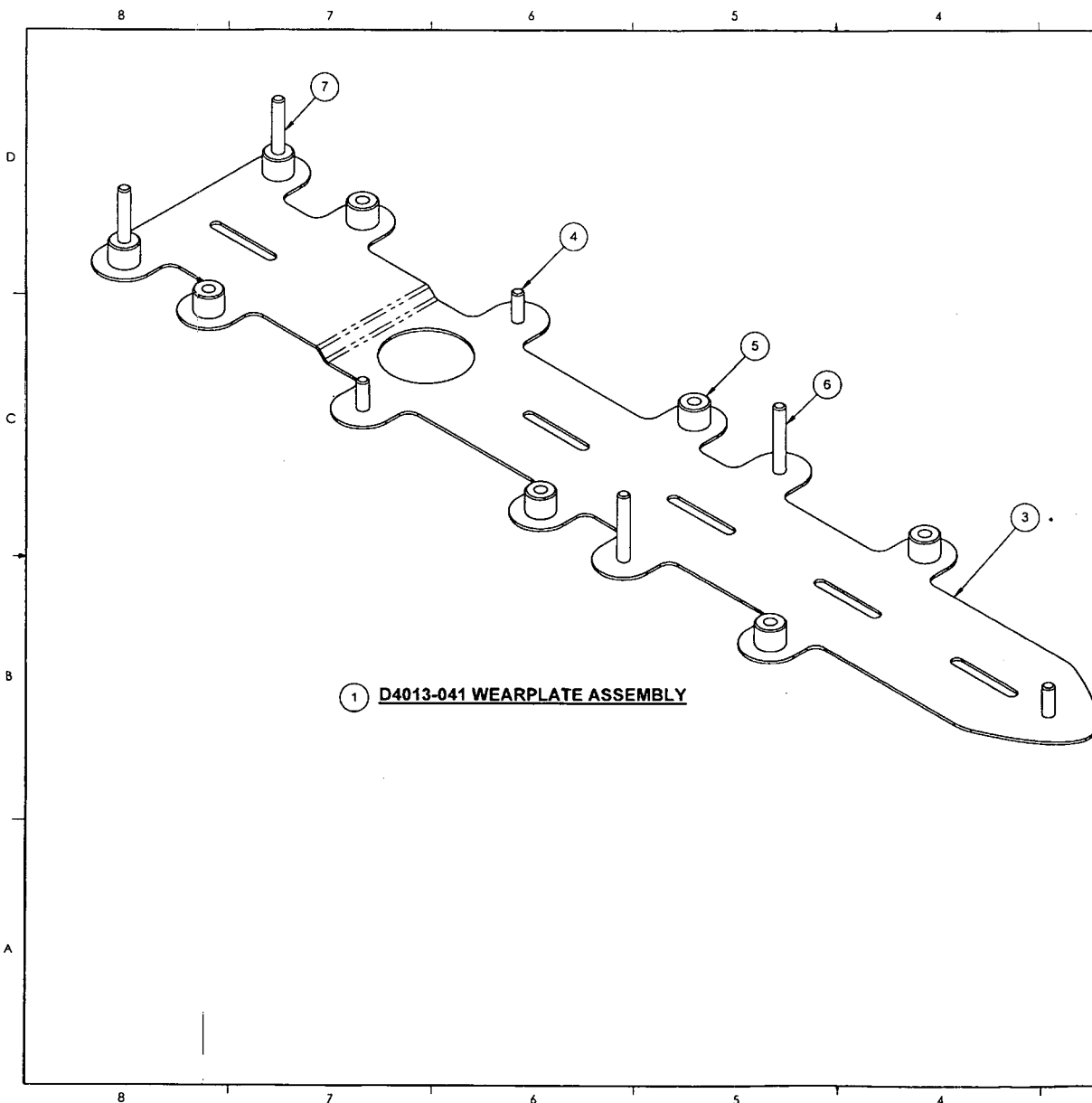
09.10.26

Per ECN# 04-6458

- NOTES:
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ROUND BAR
REF. DART SPEC. M304R
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
USING FINE POINT PERMANENT INK MARKER
 - 7) WEIGHT:
D4013-3 = LESS THAN 0.01 lbs
D4013-5 = 0.03 lbs

A3007-1

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	ASS	DRAWING NO.	REV. A
MFG. APPR.	MA	D4013	SHEET 4 OF 4
APPROVED	MD	TITLE	SCALE
DE APPR.		WEARPLATE ASSEMBLY	NTS
DATE	09.10.22	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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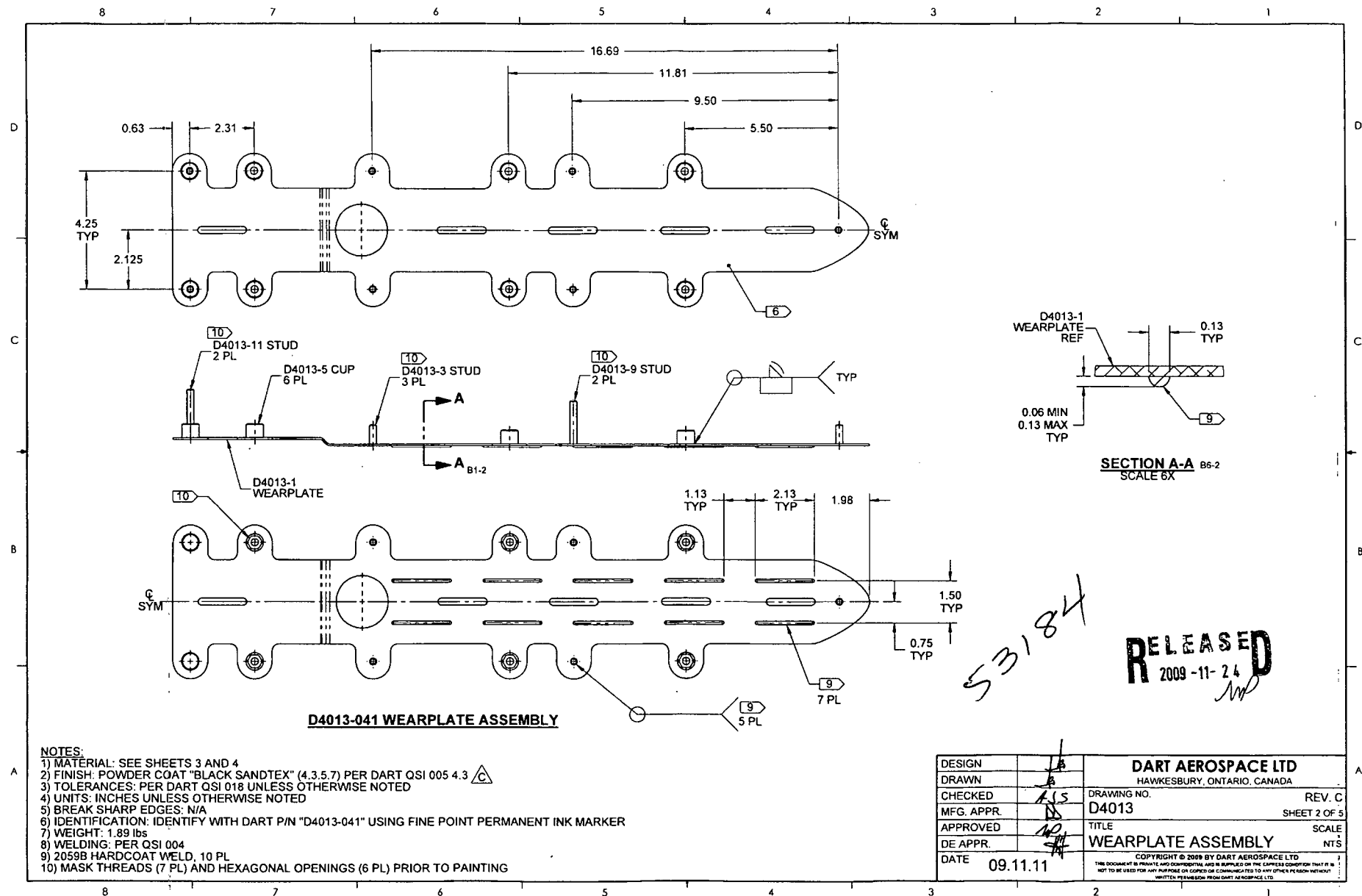
① D4013-041 WEARPLATE ASSEMBLY

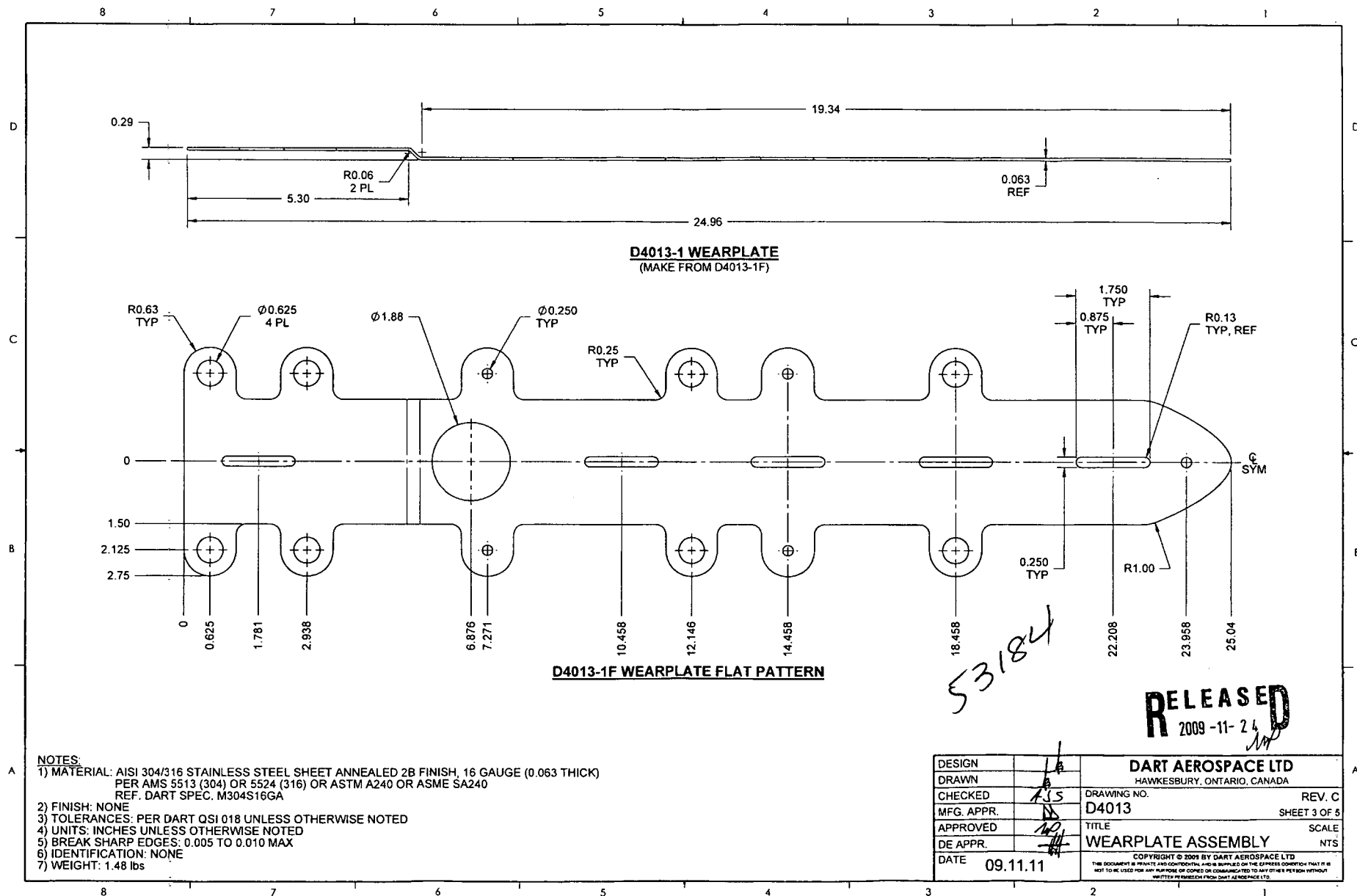
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1	X	D4013-041	WEARPLATE ASSEMBLY
3	1	D4013-1	WEARPLATE
4	3	D4013-3	STUD
5	6	D4013-5	CUP
6	2	D4013-9	STUD
7	2	D4013-11	STUD
21	A/R	2059B	HARDCOAT

53184

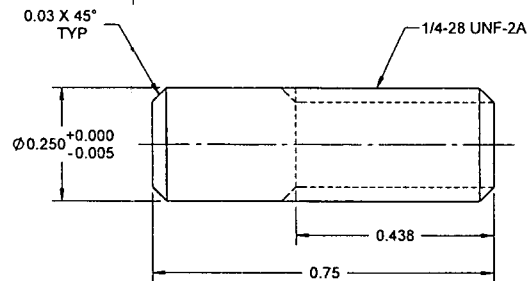
RELEASED
2009-11-24
MP

C	SIMPLIFY DESIGN FOR MANUFACTURING PURPOSES. REDESIGNED ITEM 5. ELIMINATED D4013-7 CUP (NO LONGER USED); CHANGED FINISH FROM GREY TO BLACK SANDING	MB	09.11.11
B	REDESIGN	MB	09.11.02
A	NEW ISSUE	MB	09.10.22
REV.	DESCRIPTION	BY	DATE
DESIGN	LA		
DRAWN	AS		
CHECKED	AS		
MFG. APPR.	AS		
APPROVED	AS		
DE APPR.	AS		
DATE	09.11.11		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4013 REV. C SHEET 1 OF 5 TITLE WEARPLATE ASSEMBLY SCALE NTS <small>COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>			

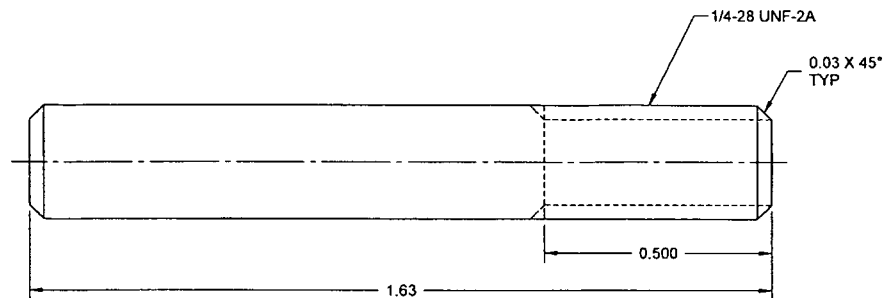




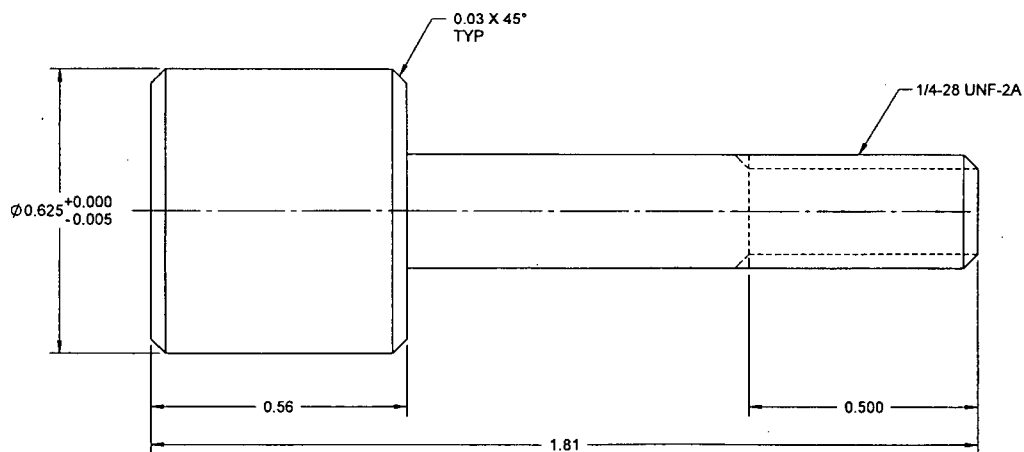
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D4013-3 STUD



D4013-9 STUD



D4013-11 STUD

53184

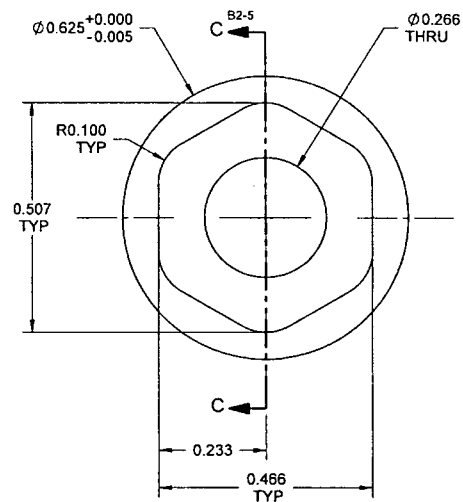
RELEASED
2009-11-24

NOTES:

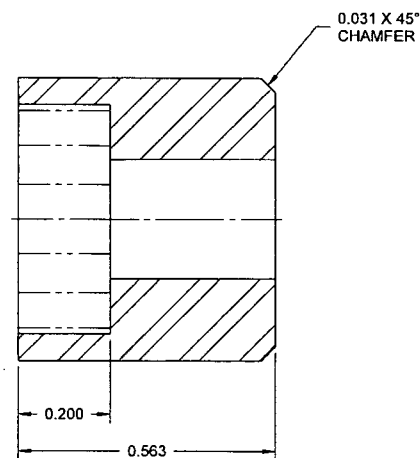
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ROUND BAR
REF. DART SPEC. M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: LESS THAN 0.01 lbs EACH

DESIGN	11	DART AEROSPACE LTD	
DRAWN	J	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. C
MFG. APPR.	DS	D4013	SHEET 4 OF 5
APPROVED	11	TITLE	SCALE
DE APPR.	11	WEARPLATE ASSEMBLY	NTS
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8 7 6 5 4 3 2 1



D4013-5 CUP



SECTION C-C D6-5

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ROUND BAR PER ASTM A276
REF. DART SPEC. M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.03 lbs EACH

DESIGN	1	DART AEROSPACE LTD	
DRAWN	1	HAWKESBURY, ONTARIO, CANADA	
CHECKED	1	DRAWING NO.	REV. C
MFG. APPR.	1	D4013	SHEET 5 OF 5
APPROVED	1	TITLE	SCALE
DE APPR.	1	WEARPLATE ASSEMBLY	NTS
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2009-11-24